

REMARKS

Objections and Rejections related to "Me(OH)"

The Examiner has objected to the specification under 37 CFR 1.71 for failing to provide an adequate written description of the invention as stated on page 15 at lines 10, 12 and elsewhere in the specification, because according to the Examiner "Me can not be defined as an alkali metal since Me(OH) is methanol and the methyl group is not belong to the alkali metal group". The Examiner has made this same objection in previous office actions.

Similarly, the Examiner has rejected claims 9, 11, 15, 19, and 23 under 35 U.S.C. 112, first paragraph, citing this objection to the specification and also noting that Applicant cannot be his own lexicographer since the Examiner views MeOH to be well known in the art as methanol.

Applicant has previously respectfully requested that the Examiner reconsider his position because Me(OH) is typically defined as a metal hydroxide in patent literature. The use of Me to represent metal salts is customary. Contrary to the Examiner's statement, Me is not customarily used to represent a methyl group or methanol when combined with OH. In support, Applicant has respectfully requested the Examiner to review the following examples of United States patents which have used "Me" in the manner as Applicant: 4,701,221 to Brunn et al., at col. 3, line 33; 4,566,975 to Allgulin at col. 1, lines 14-24; 5,248,818 to Werle et al, at col. 1, lines 51-55; 4,039,649 to Alagy et al., at col.9, line - col.10, line 70; and 5,558,706 to Sinko at col.2, lines 39-43. Applicant has even noted to the Examiner that the patent he cited in rejecting Applicant's claims, Canadian patent no. 2,285,308, uses "Me" to represent sodium hydroxide on page 2 and throughout the description and claims. Consequently, the Applicant has not understood the Examiner's position.

Applicant and his undersigned counsel interviewed the Examiner on or about May 29, 2003 and discussed this matter concerning Me(OH). The Examiner advised that he would not allow an application to issue using Me(OH) as a short-hand for a metal hydroxide, notwithstanding that a number of patents have issued with such use of Me(OH). Consequently, Applicant agreed to amend all uses of Me(OH) in the application. However, Applicant respectfully submits that his doing so does not in any

way add new matter, since the term is defined in the specification to mean an alkali metal hydroxide (see page 3, line 18), and further, Applicant's usage is believed consistent with that common among those skilled in the art relevant to Applicant's invention.

Accordingly, pursuant to the agreement in his interview with the Examiner, Applicant has amended pages 3, 4, 15 and 16 of the specification and claims 9, 11, 15, 19, and 23 to change $-\text{Me}(\text{OH})-$ to "alkali metal hydroxide."

Rejections under 35 U.S.C. 112, second paragraph

The Examiner has rejected claims 8-9 under 35 U.S.C. 112, second paragraph, as being "indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention." Specifically, the Examiner has indicated that the "definitions of said ethanol amine and NH_3 in claims 8-9 are incorrect since said components are not polyfunctional amine." Further, the Examiner said that the definitions were inconsistent with the Markush term used to define the polyfunctional amines as in claim 10.

In response, Applicant has rewritten claims 8 and 9 to be in independent form, rather than to be dependent on claim 6.

Rejections under 35 U.S.C. 103

The Examiner has again rejected claims 1, 6-11, 15, 19, 23, and 27 under 35 U.S.C. 103(a) as being unpatentable over, i.e., obvious from, CA 2,285,308, originally discussed in Applicant's specification. Specifically, the Examiner has stated that this Canadian reference discloses that "iminodisuccinic acid alkaline salts can be prepared by reacting maleic acid anhydride, alkaline metal hydroxide, NH_3 and water with a specific ratio at 70-170°C and 1-80 bars (ambient pressure is included)(step 1). The reaction mixture is mixed with additional water and optionally alkaline metal hydroxide at 50-170°C and 0.1-50 bars (step 2)." The Examiner has then stated that "Since the pressure is almost the same and the ambient pressure is included, then the pressure condition is at ambient pressure, as in the claims." Further, the Examiner has stated "the temperature

U.S. Serial No. 09/611,521 (Attorney Dkt: LIDO:003)
Art Unit: 1711

reaction in step 1 and step 2 is almost the same, then the condition 'without the addition of heat' is satisfied."

The Examiner admits that the Canadian reference differs from Applicant's claims in that the Canadian reference "does not disclose the claimed formulae nor the claimed steps of the processes for making modified iminodisuccinimic acid." However, the Examiner advises that Applicant's claims 8 and 9 "disclose the variety of choices to get the claimed products" and the Canadian reference in the Examiner's view "does disclose similar reactants under steps of the process to form the same or similar products." The Examiner then concludes that it would have been obvious to select the reactants under conditions to form the same or similar products of the claimed formulae in the absence of a showing of unexpected results derived from such use.

Applicant respectfully traverses the Examiner's rejections based on CA 2,285,308. That Canadian reference discloses methods for producing the D-L isomers of iminodisuccinate, NOT the same or similar products as Applicant's. Only Applicant's invention provides compositions having the ability to donate at least five nonbonded pairs of electrons without hindrance or bond strain. This distinction renders the compositions of Applicant's invention superior with respect to use as chelating agents. To further demonstrate the importance of this element of Applicant's invention, Applicant has amended claims 1, 6, 8-11, 15, 19, 23, and 27 to incorporate this element. Support for this amendment may be found in Applicant's specification on page 16 at lines 15-16.

Moreover, Applicant respectfully maintains that the steps taught by CA 2,285,308 are not the same as steps taught by Applicant. Applicant refers the Examiner to his discussion at pages 14-17 of his specification and asks the Examiner to reconsider his position in light of Applicant's discussion when compared to CA 2,285,308 at pages 3-7, for example.

Applicant provided further discussion distinguishing CA 2,285,308 in response to the first and subsequent office actions. Those discussions are incorporated herein by reference and the Examiner is respectfully asked to reconsider them.

Applicant discussed this rejection with the Examiner during the telephone interview and agreed to change --first polyfunctional amine-- to "monoethanolamine" in the claims. Accordingly, Applicant has amended claims 6, 9, 10, 15, 19, 23, and 27 to

U.S. Serial No. 09/611,521 (Attorney Dkt: LIDO:003)
Art Unit: 1711

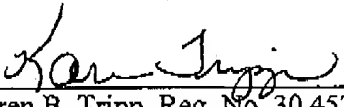
make this change. Applicant has so narrowed the claims only to expedite issuance of this patent and does not by such amendment acknowledge or agree that his invention is so limited. Applicant intends to pursue and hereby reserves the right to pursue further coverage of his invention in subsequent continuation and/or divisional patent applications.

No further matter was discussed in the interview with the Examiner. At the conclusion of the interview, Applicant understood the Examiner would reconsider his position and would consider Applicant's amended claims.

Applicant respectfully submits that the claims as amended are now in condition for allowance and Applicant respectfully requests the Examiner to enter the amendments and to allow the application to proceed to issue.

Respectfully submitted,

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